## IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) In a data processing system ~~having~~ including a plurality of processors each directly coupled via a system memory bus ~~and having~~ wherein a first processor of said plurality of processors ~~with~~ contains a level one cache memory ~~responsively~~ directly coupled to a level two cache memory which is ~~responsively~~ directly coupled to a level three memory, said level two cache memory ~~having~~ containing cache storage and tag storage and ~~having~~ containing a circuit for SNOOPing said system memory bus, the improvement comprising:

A first dedicated path between said system memory bus and said cache storage and a second dedicated path between said system memory bus and said tag storage.

2. (Currently Amended) A data processing system according to claim 1 further comprising control logic ~~responsively~~ directly coupled to said cache storage and said tag storage which provides the highest priority for said SNOOPing.

2

3. (Previously Amended) A data processing system according to claim 2 wherein said level two cache memory further comprises:

A duplicate tag memory.


4. (Previously Amended) A data processing system according to claim 3 wherein said plurality of processors further comprises

A plurality of instruction processors.


5. (Previously Amended) A data processing system according to claim 4 wherein said level three memory further comprises:

A level three cache memory.


6. (Currently Amended) A data processing system comprising:

a. A plurality of processors including a first processor ~~having~~ containing a level one cache memory;

b. A level two cache memory ~~having~~ containing a data memory and a tag memory ~~responsively~~ directly coupled to said level one cache memory;

c. A system memory bus ~~responsively~~ directly coupled to said plurality of processors and ~~responsively~~ directly coupled to said data memory and ~~responsively~~ directly coupled to said tag memory; and

d. A SNOOP request placed on said system memory bus and ~~responsively~~ <u>directly</u> coupled to said tag memory.


7. (Previously Amended) A data processing system according to claim 6 further comprising:

A data request transferred from said level one cache memory to said level two cache memory.


8. (Previously Amended) A data processing system according to claim 7 further comprising:

Control logic within said level two cache memory which provides priority of said SNOOP request over said data request.


9. (Previously Amended) A data processing system according to claim 8 further comprising:

a. A level one tag memory located within said level one cache memory; and

b. A duplicate tag memory within said level two cache memory which maintains a duplicate of information within said level one tag memory.

10. (Currently Amended) A data processing system according to claim 9 wherein said SNOOP request is ~~responsively~~ <u>directly</u> coupled to said duplicate tag memory.

11. (Currently Amended) A method of maintaining validity of data within a level one cache memory of a processor having a level one tag memory ~~responsively~~ <u>directly</u> coupled to a level two cache memory ~~having~~ <u>containing</u> a tag memory and a data memory wherein said level two cache memory is ~~responsively~~ <u>directly</u> coupled to a system memory bus comprising:

a. Formulating a SNOOP request;

b. Presenting said SNOOP request on said system memory bus to said level two cache memory;

c. Routing said SNOOP request directly to said tag memory; and

d. Processing said SNOOP request.

12. (Original) A method according to claim 11 further comprising:

a. Presenting a data request from said level one cache memory to said level two cache memory; and

b. Granting priority to said SNOOP request over said data request.

5

13. (Previously Amended) A method according to claim 12 further comprising:

Maintaining a duplicate copy of said level one tag memory within a duplicate tag memory within said level two cache memory.


14. (Previously Amended) A method according to claim 13 further comprising:

Routing said SNOOP request to said duplicate tag memory.


15. (Previously Amended) A method according to claim 14 further comprising:

Processing said SNOOP request regarding said duplicate tag memory.


16. (Currently Amended) An apparatus comprising:

a. Means for executing program instructions;

b. Means ~~responsively~~ directly coupled to said executing means for level one caching data;

c. Means ~~responsively~~ directly coupled to said executing means and said level one caching means for requesting a data element if said executing means requires requesting of said data element and said level one caching means does not contain said data element;

6

d.　Means ~~responsively~~ <u>directly</u> coupled to said requesting means for level two caching;

e.　Means located within said level two caching means for storing level two caching data;

f.　Means located within said level two caching means for maintaining level two tags; and

g.　Means ~~responsively~~ <u>directly</u> coupled to said maintaining means for directly SNOOPing said level two tags.


17.　(Currently Amended)　An apparatus according to claim 16 further comprising:

a.　Means ~~responsively~~ <u>directly</u> coupled to said storing means and said maintaining means for granting priority to a SNOOP request over said data element request.


18.　(Currently Amended)　An apparatus according to claim 17 further comprising:

a.　Means ~~responsively~~ <u>directly</u> coupled to said level two caching means for bussing system memory data;

b.　Means ~~responsively~~ <u>directly</u> coupled to said bussing means for interfacing said bussing means directly to said storing means; and

c. Means ~~responsively~~ directly coupled to said bussing

means for interfacing said bussing means directly to said

maintaining means.


19. (Currently Amended) An apparatus according to claim 18

further comprising:

a. Means located within said level one caching means for

recording level one tags; and

b. Means located within said level two caching means and

~~responsively~~ directly coupled to said recording means for

duplicating said level one tags.


20. (Currently Amended) An apparatus according to claim 16

further comprising:

a. Means ~~responsively~~ directly coupled to said bussing

means and said duplicating means for SNOOPing said duplicating

means.

8